

## CLAIMS

1. A motor for a vehicle comprising:

a rotor (112) rotating around a horizontal rotation shaft (116);

5 a stator core (106) having a plurality of slots (118) in a direction of said rotation shaft (116) in a manner facing a peripheral surface of said rotor (112);

a stator coil (104) wound inside said slot (118);

a cooling passage (150) formed such that said stator coil (104) comes in contact with a cooling liquid;

10 feeding means for feeding the cooling liquid through said cooling passage (150); and

a discharge portion (140) of said cooling liquid provided in an uppermost portion of said cooling passage (150).

15 2. The motor for a vehicle according to claim 1, wherein

said cooling passage (150) includes a passage implemented by covering an opening of said slot (118) with a sealing member (120).

20 3. The motor for a vehicle according to claim 1, further comprising a supply portion (130) of said cooling liquid provided in a lowermost portion of said cooling passage (150).

4. The motor for a vehicle according to claim 3, wherein said feeding means includes

25 pipes connected to said discharge portion (140) and said supply portion (130) respectively, and

supply means (160) for supplying said cooling liquid discharged from said discharge portion (140) to said supply portion (130), and

said motor further comprises prevention means (300, 301, 310) for preventing leakage of said cooling liquid, provided in said pipe.

5           5.   The motor for a vehicle according to claim 4, wherein  
said supply means (160) is implemented by a pump circulating said cooling liquid,  
said pipe is provided with storage means (170) for storing said cooling liquid in  
such a manner that said cooling liquid is in contact with air, and  
said prevention means (300, 301, 310) is provided at some portion in the pipe  
from a protruded outlet of said pump to an inlet of said storage means.

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6.   The motor for a vehicle according to claim 5, wherein  
said prevention means (300, 301, 310) is provided in said discharge portion  
(140).

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7.   The motor for a vehicle according to claim 5, wherein  
said prevention means (300, 301, 310) is provided in said supply portion (130).

8.   The motor for a vehicle according to any one of claims 1 to 7, being  
implemented as a distributed winding motor.

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